UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-2590

REPLY TO ATTENTION OF: SR-6J

MEMORUNDUM

DATE: December 3, 2015

SUBJECT: Inter-Agency Agreement (IA), Supplemental Engineered Controls Study, Tremont City Barrel Fill Site, Ohio.

FROM: Glynis G. Landers
EPA Region V IA Project Officer

THRU: Marvene Seaman, "EM CS"
Missouri River Division

Enclosed is the initial request for the Tremont City Barrel Fill site work assignment form (WAF) initiated under the multi-site generic Interagency Agreement (IA). This work assignment requests the assistance in a supplemental engineered controls study of the remedy of an engineered waste cell at the currently unlined, permitted, industrial waste that was selected for the Tremont City Barrel Fill Site, Tremont City, Ohio. This task is for the review of background information, a review of the selected remedy Specifications, and the submittal of potential additional engineered controls by a professional engineer/hydro-geologist and/or other appropriate disciplines. The work products (supplemental engineering controls study) will be delivered in electronic form.

If you have any questions, please don't hesitate to contact me at (312) 886-1816.

CC: Jeff Marsala (MS002) Accounting Operation Office
Jena Sleboda Braun, SR-6J
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EPA REGION V
WORK AUTHORIZATION FORM (WAF)
U.S. ARMY CORPS OF ENGINEERS GENERIC INTERAGENCY AGREEMENT

December 3, 2015

1. **NAME:** Tremont City Barrel Fill Site
2. **WAF ASSIGNMENT TITLE:** Supplemental Engineering Controls Study
3. **WAF ASSIGNMENT NUMBER: WAF (R5) 014**
4. **REVISION NO. 000**
5. **IAG NO.: DW96957842**
6. **EPA SITE I.D. NUMBER:** OHD980612188
7. **SITE/SPILL ID NO:** B5B1
8. **EPA RPM NAME:** Jena Sleboda Braun PHONE: (312) 886-0272
9. **PERIOD OF PERFORMANCE- FROM:** December 3, 2015 **TO:** March 31, 2016
10. **FUNDING**

WAF Assignment Funding	
Previous Funding	**$0**
Current Funding	**$10,000**
Total Funding	**$10,000**

11. **SCOPE OF WORK:**

Scope of Work:

The purpose of this work assignment is to request a supplemental engineering controls study for the remedy selected at the Tremont City Barrel Fill Site, Tremont City, Ohio. This work assignment requests the assistance in proposing and evaluation additional, cost effective engineering controls that may be included in addition to the selected remedy at the Tremont City Barrel Fill Site, Tremont City, Ohio. The selected remedy includes a waste cell that will contain reconsolidated non-liquid hazardous waste with various detection/monitoring systems. This task is for the review of background information and proposal and evaluation of supplemental engineering controls that includes cost estimates of the engineering controls by a professional engineer/hydro-geologist and/or other appropriate disciplines. The work products (supplemental engineering controls study) will be delivered in electronic form.

Site Description/Background Information:

In 1976 Ohio EPA issued a permit for a chemical landfill that would dispose of various hazardous waste from the Barrel Fill site. From 1976 to 1979, about 51,500 drums and around 300,000 gallons of industrial waste were disposed of in 50 waste cells about 15 to 20 feet deep. This waste included glues, resins, paint sludge, paint scrap and waste, soap, shampoo, detergent, asbestos, oils and other industrial compounds.

Disposal of liquid, biodegradable waste (margarine, corn syrup) from food industry sources occurred next to the Barrel Fill site between 1979 and 1980. All disposal operations at the site stopped in 1980 and a soil cover of three to four feet was placed over the area. Soil was added in subsequent years and now the cover over the waste cells ranges from 10- to 17-feet deep.

EPA began investigating conditions at the Barrel Fill location in 1997 in response to community concerns about pollution releases. The Agency did find some leaks from the waste cells and concluded more study was needed. In 2002 EPA negotiated a legal agreement with the responsible parties. The legal agreement required the PRPs to investigate the contamination and to reimburse EPA for any oversight costs the Agency incurred.

The investigation by the PRPs found most of the waste cells were intact but did show high levels of contaminants at the Barrel Fill site. The underground waste and drums contain a variety of "contaminants of concern" at concentrations that exceed established safety levels. Contaminants of concern are substances that pose a significant current or future health risk at the site.

Levels of volatile organic chemicals (VOCs), semi-volatile organic chemicals (SVOCs) and metals were detected in the liquid and solid waste held in the waste cell water samples, surrounding waste and in shallow ground water. Ground water is an environmental term for underground supplies of water. SVOCs are also found in the surface water while VOCs and metals have contaminated the soil. Results of sediment (mud) sampling conducted next to the Barrel Fill site near Chapman Creek also showed elevated contaminant levels. Some elevated levels of contaminants may be due to the Landfill residing on the same property as the Barrel Fill.

The investigation at the property included a human health risk assessment that studied risks to maintenance workers and trespassers, the most likely people to be exposed to pollution on the site. The assessment concluded contaminant levels in the air, soil and surface water do not currently pose a significant risk. However, the study did find elevated risk to human health from future groundwater contaminants leaking into surface water. The assessment did not evaluate the risk of contamination to the underground layer of rock and other material containing drinking water (called an aquifer). But EPA has concluded contaminants will move toward the drinking water aquifer in the future if no cleanup action is taken. Therefore, EPA has considered the drinking water aquifer a factor in its evaluation of cleanup alternatives.

Description of Selected Remedy:

The remedy selected in the September 2011 Record of Decision (ROD) included excavating all waste and transporting liquid waste off-site for treatment and disposal; building a double-lined engineered waste cell containing a bottom clay liner and a flexible membrane liner with a liquid collection system;

consolidating hazardous and nonhazardous solid waste and contaminated soil in the waste cell; placing a hazardous waste cap over the cell and install a slurry wall around the cell along with a liquid collection; and an additional liquid collection system would be installed as a back-up. Any liquid collected would be pumped to an on-site storage tank for eventual treatment and disposal. Since the remedy was selected, EPA, the PRPs, and some state and local officials have stated that a standard hazardous waste double liner would be preferred to the slurry wall, so evaluation with this feature will also be necessary.

The purpose of this work assignment is to request a supplemental engineering controls study for the remedy selected at the Tremont City Barrel Fill Site, Tremont City, Ohio. The purpose of the supplemental study is in response to public and political outcry over leaving waste in place at the Site. The remedy selected best meets the nine criterial mandated by the NCP, so a new remedy will not be selected, however, due to the very organized and very vocal community and community leaders, EPA would like to evaluate additional, cost effective engineering controls that may allay the community's fears and protests.

The major components of the selected remedy include the following:

- Removing the existing clean soil cover and holding it on-site. This will be reused for the compacted soil cover above the hazardous waste liner.
- Excavating the drums, uncontained waste and contaminated soil from each of the 50 waste cells. Any waste, including sludge, that is determined to be liquid will be sent for off-site treatment and disposal.
- Removing non-liquid hazardous waste from the drums and preparing the drums for reburial.
- Pumping and removing all liquid waste, both in and outside of containers. The liquid waste will be taken off-site to be treated and disposed.
- Consolidating uncontained waste and solid hazardous and nonhazardous waste in drums and contaminated soil in a newly constructed engineered lined cell with leachate (seepage) collection. The drums and their contents will be crushed to reduce volume and to help remove any liquids from the drums.
- Installing a hazardous waste landfill cover over the waste left on-site.
- Long-term underground water (groundwater) monitoring.
- Preventing or limiting certain future land uses and the use of site groundwater.
- Placing fencing and signs around the site.
- Contingency planning in case officials must take action if unexpected conditions occur.
- A slurry wall with compressed clay and leakage detection system OR a hazardous waste double FML liner with leachate collection for both liners.

The Supplemental Engineering Controls Study must evaluate cost efficient additional controls and the cost and efficacy of those controls. The study must evaluate the feasibility and appropriateness of the additional engineering controls and provide a recommendation for pursuing or not pursuing those additional controls along with appropriate justifications. A technical memorandum must be submitted

to document the findings from the Supplemental Engineering Controls Study and feasibility analysis of the selected engineering controls. The study will include, but not be limited to, the following additional engineering controls:

1. Removal and off-site disposal of wastes that exhibit the characteristics of ignitability, corrosivity, or reactivity;
2. The addition of a physically stabilizing agent to wastes reconsolidated in the newly engineered waste cell;
3. The additional of a physically and chemically stabilizing agent to wastes reconsolidated in the newly engineered waste cell;
4. The addition of a bioremediation agent to the wastes reconsolidated in the newly engineered waste cell, and ;
5. Incineration of wastes on-site and reconsolidation of treated waste in the newly engineered waste cell.

12. **SCHEDULE FOR ASSIGMENT ACTIVITIES AND DELIVERIES:**

Deliverables: Feasibility Study and other relevant documents to be delivered to USACE on December 4, 2015.
Due Date: 90 days after receipt of document

13. **ACCOUNTING INFORMATION:**

Accounting Information								
	DCN	**FY**	**APPR. CODE**	**BUDGET ORG.**	**PROGRAM ELEMENT**	**SITE PROJECT**	**OBJECT CLASS**	**AMOUNT**
Deobligate From	**SEX004**	**15**	**T**	**5AFOP**	**302DD2**	**05WQTA00**	**2506**	**$10,000**
Obligate To:	**SEX004**	**15**	**T**	**5AFOP**	**302DD2**	**B5B1TA00**	**2506**	**$10,000**

If additional funds or extensions to the period of performance are needed, the USACE shall contact the USACE Generic IA Project Officer, Ms. Glynis G. Landers at (312) 886-1816, as soon as practicable.

PRIMARY CONTACTS

The primary EPA contact for this work assignment is Jena Sleboda Braun. She can be reached at (312) 886-0272 or by email at sleboda.jena@epa.gov.

AUTHORIZATION:

Authorized is hereby given to USACE to provide technical assistance work as provided for in the generic IA and within the scope of work, budget, and schedule as described in this WAF. Sufficient funds are available in the generic IA to support this WAF.

Glynis G. Landers
Glynis G. Landers (SR-6J)
Regional Project Officer

CC: Jeff Marsala (MS002) Accounting Operation Office
Jena Sleboda Braun, SR-6J
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